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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,781	04/07/2005	Adrian-Gelu Boborodea	ECLE59.010APC	9389

20995 7590 09/05/2007  
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EXAMINER	
WEST, PAUL M	

ART UNIT	PAPER NUMBER
2856	

NOTIFICATION DATE	DELIVERY MODE
09/05/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com  
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# Office Action Summary

Application No.

10/530,781

Applicant(s)

BOBORODEA ET AL.

Examiner

Paul M. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-21 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,4,7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Jinno et al (2002/0050470).
3. Regarding claim 1, Jinno et al teach a column comprising a column packing that consists of elastic wires which are disclosed as having a diameter of 500 nm to 15  $\mu$ m and a length of 1 mm to 10 m. Note that any combination within these ranges has a length per diameter which is greater than 3 (Par. 0033,0034,0035).
4. Regarding claim 2, Jinno et al teach that the elastic wires can be made of KEVLAR which is known to have a Young's modulus greater than 50 Gpa (Par. 0033).
5. Regarding claim 4 Jinno et al teach that the length of the wires may be between 1 mm and 10 m which includes many lengths that are great than 2 mm, and Jinno et al also teach that the diameter of the wires is between 500 nm and 15  $\mu$ m which is well below 1 mm.
6. Regarding claim 7, Jinno et al teach that the column can be made from glass (Par. 0039).

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7. Regarding claim 8, Jinno et al teach that the column has an inner diameter between 1 to 600  $\mu\text{m}$  (Par. 0039) and teach an example where the column has a length of 150 mm (Par. 0125).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinno et al (6,780,314) in view of Reynolds et al (3,492,794).

3. Regarding claims 3 and 5, Jinno et al does not teach the wires being made of stainless steel, metal, carbon fibers or glass fibers, however, Reynolds et al teach a packing column which consists of metal wires (Col. 3, lines 30-35). It would have been obvious to one of ordinary skill in the art to combine the teachings of Reynolds et al with the apparatus of Jinno et al because metal wires will create a packing which is suitable for testing different material than what polymer packings are used for and thus would allow the invention to be used for a wider array of purposes. Furthermore, it would have been obvious to use a metal which has a thermal conductivity higher than  $0.1 \text{ W cm}^{-1} \text{ K}^{-1}$  because nearly all metals and metal alloys which are commonly used in manufacturing wires or filaments have a thermal conductivity which is higher than this value.

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4.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Britto et al in view of Jinno et al.

6. Regarding claim 9, Britto et al teach a temperature controlling system (right column of page 555 discusses stepwise raising of the temperature to 160°C), a sample injector for injecting a polymer solution into the column (charged to the column, right column, page 555), a pump (compressor, Fig. 1), and a detector (a chromatograph for SEC and a differential scanning calorimeter). Britto et al do not teach the details of the column and packing, however Jinno et al teach the details of the column of claim 1 as set forth above. It would have been obvious to one of ordinary skill in the art to combine the teachings of Jinno et al with the teachings of Britto et al because the column of Jinno et al is disclosed as being considerably more advantageous for liquid analysis.

#### ***Allowable Subject Matter***

7. Claims 10-21 are allowed.

#### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

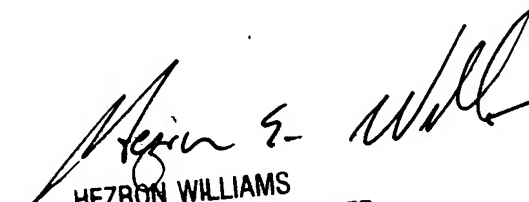
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul M. West whose telephone number is (571) 272-8590. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800